



Contra Costa County
Public Works
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Adopt - A - Road Program

A Plan for Litter Control

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"Accredited by the American Public Works Association"

Maintenance Division

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Contra Costa County
**Public Works
Department**

Adopt – A – Road Program

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Chapter

1

Introduction

Adopt – A – Road Program

A Plan for Litter Control

Program Description

The Adopt – A – Road Program encourages organizations, corporations, groups, and individuals to participate by providing volunteers to maintain and enhance Contra Costa County roadsides on roads serviceable by volunteers.

Program Goals

- Designed to promote civic responsibility, community spirit and pride, and to provide an opportunity to accomplish something worthwhile.
- Designed to save taxpayer dollars and to operate with a minimum of red tape and with minimum supervision by County Public Works.
- Designed to allow participants to work responsibly at their own convenience.
- Designed for volunteers 13 years and older with appropriate supervision under age 18.
- Recognize participants with appropriate sponsorship signs installed at the adopted section, press releases, and certificates of appreciation. County Public Works Department provides and installs the signs. Participants may provide a customized panel with logo and color (maximum size 15" tall x 30" wide) at their expense.

Litter Removal

Litter removal is a way in which individuals or groups can participate in the Contra Costa County Adopt – A – Road Program. Volunteer efforts on County roadways and accompanying recognition signs increase public awareness as well as appeal to community values and pride. Additionally, volunteer efforts supplement County resources, save taxpayer dollars and allow



County workers to deal with higher priority maintenance of pavement, drainage, and safety facilities. The following are more details regarding the program:

- Adopt – A – Road participants agree to perform their function for 2 years.
- Minimum length of adopted section is 2 miles for litter removal.
- Work must be performed according to the assigned frequency to be determined by the Public Works Department for the section of roadway adopted. The frequency may be one occurrence, bimonthly, monthly, or quarterly, depending on the section of roadway. Participants will be issued completion report forms to record cleanup efforts.
- Contra Costa County Public Works Department will provide free trash bags and disposal.
- Contra Costa County Public Works Department will provide safety vests.
- Contra Costa County Public Works will review all adopted areas annually to ensure compliance with agreements.

Adoptable Roads

The Adopt – A – Road Program applies to all types of County roadways. Some sections of roadway may be unacceptable for adopting for the following reasons:

- Heavy traffic
- Dense vegetation
- Narrow road shoulders
- Restricted visibility
- Poor road alignment
- Rugged terrain, steep slopes
- Section currently adopted

The Public Works Department will advise whether a certain section of roadway is adoptable and suggest alternatives if a desired section is not adoptable for cleaning by volunteers.



Chapter

2

Safety

The Adopt – A – Road Program is designed to have safety as most important. Adoptable sections of roadway are selected for safety and appropriateness of the work involved. Participants bear individual responsibility for personal safety and appropriate behavior within the County right of way.

Insurance is not required. However, participants agree to hold the County harmless for injuries arising out of their inappropriate action or nonconformance to safety requirements.

Participants work without direct Public Works supervision and without traffic control. **Groups are required to provide one adult supervisor for every five minors (children between the ages of 13 and 18) on the roadside.**

Group leaders are responsible for conducting safety briefings for all participants according to the attached safety requirements and to assure all participants follow the safety requirements.

While working along the roadside, remember **SAFETY FIRST!!**



Chapter

3

Adopt – A – Road Agreement Conditions

Agreement Conditions

Work shall be conducted during daylight hours. Work shall not be conducted on holiday weekends, or within twenty-four hours preceding a holiday weekend unless specifically authorized.

If weather or other adverse circumstances cause a public hazard, work shall be immediately discontinued.

Volunteer work shall be subordinated to operations which the County or other designated entities may conduct, and shall not interfere with such efforts.

Volunteer(s) performing work under this Agreement shall wear personal protective equipment (safety vest, safety glasses, and gloves) while on County right of way. Group leader will be responsible for storing personal protective equipment after a clean up and bringing it back to future cleaning events. Replacement equipment will be supplied when worn equipment is returned. County furnished personal protective equipment shall be returned upon termination of the Agreement.

County furnished litter bags and personal protective equipment may be obtained from Public Works Department, Waterbird Corporation Yard, at 2475 Waterbird Way, Martinez (Monday – Thursday).

Volunteers shall designate a group leader and one alternate. One adult supervisor shall be assigned for each five minors participating in litter pickup. **No minor less than thirteen years of age shall be allowed to participate.**

Participants' personal vehicles shall be legally located off the traveled way so as to not interfere with the free flow of traffic, bicycles, or pedestrians.

Participants agree to notify the County prior to every activity on County right of way. A minimum of one week's notice will be necessary to verify the status of the area scheduled for activity.



Participants agree to provide a summary report of activities completed after each effort which includes location cleaned, total number of litter bags filled, and the location of where to pick up the filled litter bags. This information must be provided no later than one business day after the cleanup effort.

Lack of participation as scheduled, failure to notify Public Works Department to collect filled trash bags, or failure to complete activity summary report may result in the termination of Agreement.

No work shall be authorized in median areas without prior review and acceptance of the location.

This Agreement is valid for two calendar years from the date of issuance.

Volunteers electing to furnish special identification plates conforming to County specifications for their Adopt – A – Road signs may do so. Volunteer shall furnish additional plates when required by Public Works Department for maintenance purposes.

It is understood and agreed by the Volunteer that the performance of any work under this Agreement shall constitute an acceptance of the provisions of the Agreement and all attachments.

The County reserves the right to terminate this Agreement at any time for any reason.



Adopt – A – Road Agreement

Adopted Road:	
Supervisor District:	
Issuance Date:	
Expiration Date:	
Limits:	
Assigned Frequency:	
Group/Individual Name:	
# Of Participants:	
Contact Person/Phone/Email:	
Alternate/Phone/Email:	

PERMISSION IS GRANTED TO THE NAMED VOLUNTEER, SUBJECT TO AGREEMENT CONDITIONS, TO ENTER ONTO PUBLIC RIGHT OF WAY NAMED ABOVE FOR THE PURPOSE OF PICKING UP LITTER AS ASSIGNED.

This Agreement or a copy thereof, shall be kept at the work site and must be shown to any representative of the Public Works Department or any law enforcement officer upon demand. **WORK SHALL BE SUSPENDED IF AGREEMENT IS NOT AT JOB SITE AS PROVIDED.**

Each individual shall attend a safety orientation conducted by the Volunteer Representative prior to entering the County right of way. The orientation shall include a discussion and explanation of the attached safety requirements. Individuals must participate in a safety orientation at least once during each calendar year when work is authorized.

No reimbursement will be made for expenses incurred by the Volunteer or participants. It is understood that a vehicle is not to be used when performing work associated with litter pick up from the roadside.

The Volunteer and its officers, employees, agents, and subcontractors shall defend, indemnify, save, and hold harmless the County of Contra Costa and its officers and employees from all and any claims, costs, and liability for any damages, sickness, death, or injury to person(s) or property, arising directly or indirectly from or connected with the operations or services of the Volunteer or its officers, employees, agents, or subcontractors hereunder, save and except claims or litigation arising due to sole negligence or sole willful misconduct of the County of Contra Costa or its officers or employees. The Volunteer will reimburse the County of Contra Costa for any expenditure, including reasonable attorneys' fees, the County of Contra Costa may make by reason of the matters that are the subject of this indemnification and, if requested by the County of Contra Costa, will defend any claims or litigation to which this indemnification provision applies at the sole cost and expense of the Volunteer.

The term of the Agreement is two (2) calendar years from the date of issuance. In the event Volunteer wishes to renew the Agreement, a notice of such intent shall be submitted to the Public Works Department at least thirty (30) days prior to expiration of this Agreement. This Agreement may be cancelled by the County for nonconformance with Agreement provisions or failure to adhere to direction given by the County's Representative.

PUBLIC WORKS DEPARTMENT (COUNTY)	VOLUNTEER REPRESENTATIVE
SIGNATURE:	SIGNATURE:
PRINT NAME:	PRINT NAME:



Participant Hold Harmless Form

Date

I/We have read and understand the safety requirements provided by the County of Contra Costa and will abide by these safety tips.

No reimbursement will be made for expenses incurred by the participant. It is understood that a vehicle is not to be used when performing work associated with litter pick up from the roadside.

I/We shall defend, indemnify, save, and hold harmless the County of Contra Costa and its officers and employees from all and any claims, costs, and liability for any damages, sickness, death, or injury to person(s) or property, arising directly or indirectly from or connected with the performance or non-performance of this Agreement operations, save and except claims or litigation arising due to sole negligence or sole willful misconduct of the County of Contra Costa or its officers or employees.

Print Name

Address

Signature (Authorized adult
must sign for a minor)

1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		



Volunteer Application and Registration Form

Name

Age

Home Address

Home Phone

Business Address

Business Phone

Driver's License No., If Any

Do you have a health problem we should be aware of in an emergency? Yes____ No____

(If Yes, describe: such as a history of back trouble, heart, epilepsy, diabetes, fainting, etc.)_____

Is there a medication you must take? Yes____ No____

Is there a medication to which you are allergic? Yes ____ No____

If yes, medication is: _____

Medical or Hospital Insurance Plan: _____

Automobile Insurance Carrier: _____

Person to Call in Emergency

Address

Phone No.

I have been informed against and accept responsibility for any breach on my part respecting confidential information. I have read the Policy adopted by the Contra Costa County Board of Supervisors on volunteer programs. In return for the benefits provided by Contra Costa County in case of my illness, injury, death, or third party liability while providing, or resulting from acts or occurrences within the scope of my authorized volunteer services, and for my right to authorized expense reimbursement, I waive any claim on my behalf and on behalf of my heirs, representatives, and assigns against the County of Contra Costa, any other agency governed by the Board of Supervisors, and any agent, officer or employee thereof for illness, injury, debts or without limitation, other harm arising from my volunteer services, whether or not authorized.

Signature

Date

Received: _____

Signature

Date



Parental Consent Form

Name of Minor: _____

Address: _____

Birth Date: _____

Volunteer Activity: _____

The above person, a minor, desires to perform volunteer services for the County in accordance with the attached application form.

As parent/guardian of this minor, permission is hereby granted for him/her to participate in the volunteer program. My child does not have any physical or medical problems which would prohibit or limit participation in the volunteer program, except: _____

In case of illness or emergency, please call: _____

Telephone Number: _____

I have reviewed the volunteer application and registration form and the policy adopted by the Contra Costa County Board of Supervisors on volunteer programs, and give my consent for _____ to participate in the volunteer program subject to the terms and conditions expressed therein.

Signed by Parent/Guardian: _____

Date: _____



Contra Costa County
**Public Works
Department**

Adopt- A – Road Program

Completion Form

This form is used by the Adopt – A - Road Coordinator to keep track of program participants and the frequency of cleaning of the adopted road. **Please remember to fill out and return a copy of this form after each cleanup by the next business day.**

Cleanup date(s): _____

Group leader: _____ Phone#: _____

Name of organization: _____

Road adopted: _____

Number of volunteers that participated: _____

Number of hours the cleanup lasted: _____

Number of trash bags filled: _____

Location of filled bags: -----

Were there any unusual incidents or injuries during the cleanup? _____

If so, please describe: -----

Note: Call the Adopt-A-Road Program Coordinator at 925-313-7000 the following business day after each cleanup to report completion.

Mail to: Tim Brown
Adopt-A-Road Program Coordinator
Contra Costa County Public Works Department
2475 Waterbird Way
Martinez, CA 94553

Or Fax to: Tim Brown, Adopt-A-Road Program Coordinator, 925-313-7014

Or E-Mail to: Tim.Brown@pw.cccounty.us



Appendix A

- **Safety Requirements**
- **Heat Illness Prevention**
- **Poison Oak**
- **Tick Safety**
- **Stinging Insects**
- **Insect Repellant**
- **Spider Safety**
- **Rattlesnake Safety**
- **Insect Bites and Stings: First-Aid**



Safety Requirements

TO PROTECT YOURSELF AND OTHERS:

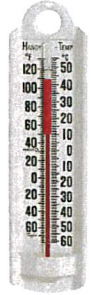
- Use caution when crossing roadways. Use crosswalks and signals where available.
- Face oncoming traffic as you work and keep an eye on traffic. Be prepared to move quickly if necessary.
- Work in small groups, three to five persons. DO NOT BUNCH UP. Large groups should be broken up and dropped off at different locations.
- When removing litter, do not work on the roadway or on bridges.
- Discontinue work before dusk. Do not attempt to work when fog or other conditions reduce visibility for drivers. Do not attempt to work when roadway is icy or wet.
- Do not touch or attempt to remove material which you suspect may be toxic or hazardous. Items to avoid include: powders, chemicals, smelly substances, suspicious packages, chemical drums or containers, weapons, syringes or hypodermic needles, dead animals, and broken glass. If you discover any of the above mentioned items, notify Public Works at 925-313-7000 (Mon – Thurs). The location of suspected toxic substances or any other hazardous materials should be identified to facilitate review by proper authorities.
- Weapons should be immediately reported to the police by calling 911.
- Wear safety vests whenever you are on the roadside.
- Wear long pants and substantial leather shoes or boots with ankle support. Watch your footing and stay off steep slopes, drainage facilities, or places from which you might fall. Light colored clothing, long sleeve shirts, gloves, and sunscreen lotion is recommended.
- Do not run, throw objects, or engage in horseplay or any other activity which may distract drivers.
- Avoid overexertion. Drink plenty of water, especially on warm humid days.
- Be alert for places where wildlife may be located. Also be alert for insects and poisonous plants such as ticks, bees, and poison oak.



Heat Illness Prevention

Warm weather brings hot and sunny work days. Be careful not to let a heat-related illness spoil the day. Normally, the body has ways of keeping itself cool, by letting heat escape through the skin, and by evaporating sweat (perspiration). **If the body does not cool properly or does not cool enough, you may suffer a heat-related illness.** Anyone can be susceptible although the very young and very old are at greater risk. Heat-related illnesses can become serious or even deadly if left unattended.

EXTRA RISK FACTORS: People who are overweight, physically unfit, suffer from heart conditions, drink too much alcohol, or are not acclimated to the temperature are at greater risk of heat stress and should seek and follow medical advice.



PREVENT Heat Stress Injuries And Illnesses:

Dress For The Heat. Wear lightweight, light-colored clothing. Light colors will reflect away some of the sun's energy. It is also a good idea to wear hats or to use an umbrella. Also wear sunscreen to prevent sunburns. Take extra breaks and care if you wear personal protective gear or clothing.

Drink Water. Carry water or juice with you and drink continuously even if you do not feel thirsty. The recommended frequency is 1 cup every 15 minutes. Avoid alcohol and caffeine, which dehydrate the body. If you know you will be working outdoors during the day, start drinking water early. By the time you feel thirsty, you are already beginning to dehydrate.

Drink Fluids With Salts And Ions. Commercial sports drinks, such as Gatorade, also replenish your body with needed salts, such as sodium and potassium that you may lose when you sweat. This can help avoid heat cramps.

Eat Small Meals; Eat More Often. Avoid high protein foods which increase metabolic heat.

Avoid Using Salt Tablets Unless Directed To Do So By A Physician.

Slow Down. Avoid strenuous activity. If you must do strenuous activity, do it during the coolest part of the day, which is usually early in the morning.

Stay Indoors Or Under The Shade When Possible.

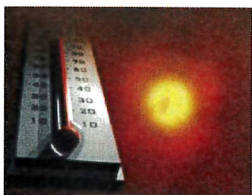
Take Regular Breaks when engaged in physical activity on warm days. Take time out to find a cool place – under some shade or in an air-conditioned vehicle. If you recognize that you, or someone else, is showing the signals of a heat-related illness, stop the activity and find a cool place to rest and re-hydrate. **Remember, stay cool!**

Acclimate. Build up tolerance to heat and work activity slowly. This usually takes 2 weeks. If you are returning from vacation, remember to buildup heat tolerance slowly.

WORK TOGETHER:

Recognizing the symptoms of heat stress is very important, particularly since the victim may not realize what is happening. **Watch out for your coworkers.** If you work alone in a hot environment, develop a "**buddy system**" so someone will check on you periodically to look for signs of heat stress.

Special Considerations During Heat Waves:



During unusually hot weather conditions lasting longer than 2 days, the number of heat illnesses usually increases. This is due to several factors, such as progressive dehydration, loss of appetite (and possible salt deficit), and buildup of heat in living and work areas. Make a special effort to prevent heat illness during extended heat spells. Avoid any unnecessary or unusual stressful activity. Get enough sleep and good nutrition to maintain a high level of heat tolerance.

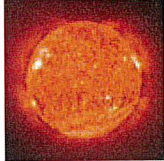
The Three Stages of Heat-Related Illness:

Stage 1: The sign of the first stage of Heat Illness is **heat cramps** in the muscles.

Heat cramps are muscular pains and spasms due to heavy exertion. They usually involve the abdominal muscles or the legs. Dehydration (loss of water and salt) from heavy sweating causes the cramps.

Stage 2: The next, more serious stage is known as **heat exhaustion**.

Heat exhaustion is more dangerous than heat cramps. It typically occurs when people exercise heavily or work in a warm, humid place. They lose body fluids through heavy sweating. Fluid loss causes less blood flow to the vital organs, resulting in a form of shock. With heat exhaustion, sweat does not evaporate as it should, possibly because of high humidity or too many layers of clothing. The body does not cool properly. Signals of heat exhaustion include:

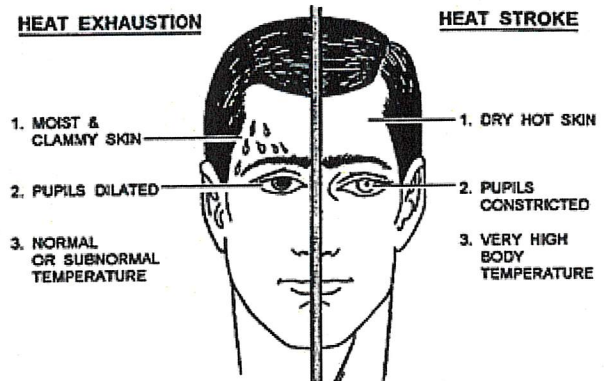


- The skin may or may not feel hot. The body temperature is usually near normal.
- Cool, moist, pale skin. Flushed or red skin.
- Heavy sweating.
- Headache.
- Dizziness and weakness or exhaustion. Nausea or vomiting.

Stage 3: The signal of the late stage of a heat-related illness is called **heat stroke**:

*Also known as sunstroke, heat stroke is **life-threatening**. Call 9-1-1. The victim's temperature control system, which produces sweating to cool the body, stops working. The body temperature can rise so high that brain damage and death may result if the body is not cooled quickly. Signals include hot, red and dry skin; changes in consciousness; rapid, weak pulse; and rapid, shallow breathing. Body temperature can be very high--sometimes as high as 105°F. Signs of heat stroke:*

- High body temperature (sometimes as high as 105°F).
- Skin may still be moist or the victim may stop sweating.
- Skin may be red, hot and dry.
- Decreased alertness or complete loss of consciousness.
- Rapid, weak pulse.
- Rapid, shallow breathing.
- Vomiting.



First Aid for Heat Emergencies



1. Cool the Body
2. Give Fluids
3. Minimize Shock

For Heat Cramps: If you are caring for a person who has heat cramps, have him or her stop the activity and rest. If the person is fully awake and alert, have him or her drink small amounts of cool water or a commercial sports drink. Gently stretch the cramped muscle and hold the stretch for about 20 seconds, then gently massage the muscle. Repeat these steps if necessary. If the victim has no other signs of heat-related illness, the person may resume activity after the cramps stop.

For Heat Exhaustion: Get the person to a cooler place and have him or her rest in a comfortable position. If the person is fully awake and alert, give a half glass of cool water every 15 minutes. Do not let him or her drink too quickly. Do not give liquids with alcohol or caffeine in them, as they can make conditions worse. Remove or loosen tight clothing and apply cool, wet cloths such as towels or wet sheets. **Call 9-1-1 or the local emergency number if the person refuses water, vomits or loses consciousness.**

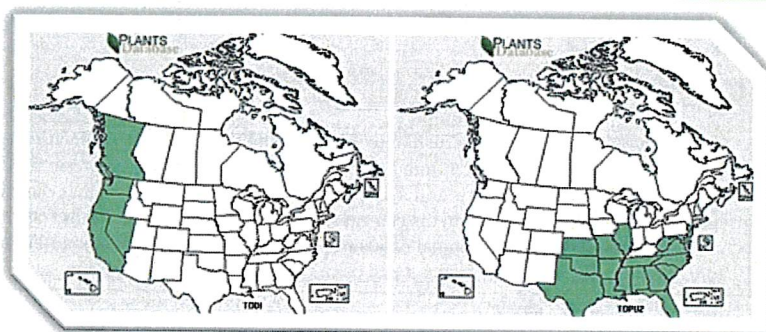
For Heat Stroke: **Call 9-1-1 or your local EMS number. Heat stroke is a life-threatening situation! Help is needed FAST.** Move the person to a cooler place. Quickly cool the body. Wrap wet sheets around the body and fan it. If you have ice packs or cold, wet towels, wrap them on each of the victim's wrists and ankles, in the armpits and on the neck to cool the large blood vessels. (Do not use rubbing alcohol because it closes the skin's pores and prevents heat loss.) Watch for signs of breathing problems and make sure the airway is clear. Keep the person lying down. Try to keep the person cool.

Poison Oak

Leaves of Three, Let Them Be

Poisonous plants present hazards to outdoor workers. In California (CA), poison oak is one of the larger types of these plants. For most workers, contact with poison oak can cause an irritating, itchy rash on your skin, also known as contact dermatitis. For workers with allergies to poison oak, this plant is especially dangerous and can cause deadly reactions. According to the United States (U.S.) Bureau of Labor Statistics (BLS), occupational skin diseases, mostly in the form of allergic and irritant (contact) dermatitis, are the second most common type of occupational disease. Training, which includes how to identify and avoid this plant, is key in protecting workers.

Poison Oak – What and Where



Poison oak is a plant with an oily, lacquer-like resin in its sap called toxicodendrol. This resin contains a potent chemical called urushiol that commonly causes allergic skin reactions. Toxicodendrol does not dissolve in water, is difficult to wash off, and its toxicity persists for extended periods of time because it sticks to the skin. It binds so strongly to the skin, washing for more than 15 minutes after exposure does little to remove it. Poison oak is found

primarily in the West Coast of the U.S. as a deciduous shrub. In shady canyons and riparian habitats, it commonly grows as a climbing vine with roots that adhere to the trunks of oaks and sycamore trees. It also forms dense thickets in chaparral and coastal sage shrub, particularly in central and northern CA, and regenerates readily after fire and land clearing. **Its leaves come in sets of three, are shiny, without prickles, the stems are erect, and the middle leaf has a distinct stalk that is longer than the other two.** In some areas, the leaves are constantly green, but in other areas the leaves change colors based on the season. Regardless of season, contact with poison oak can lead to a skin reaction. The following is information to help identify poison oak during different seasons through the year:

Seasonal Color Changes in Poison Oak Leaves			
Fall	Spring	Summer	Winter
<p>The leaves can turn colors such as yellow or red when other plants are still green. Berry-like fruit on the mature female plants also changes color in fall, from green to off-white. Remember: "Leaves of three, let it be... berries white, a poisonous sight."</p>	<p>The leaves are light, bright green with whitish green flowers clustered on the stems</p>	<p>Some leaves can be either yellow-green, pink, or reddish, with small white or tan berries after the flowers of spring</p>	<p>The leaves and seeds fall, leaving stick or whip-like stems or climbing vines</p>
 	 	 	 <p>Without leaves, poison oak may be identified by the long upright main branches with short, stubby side branches</p>

Avoiding Contact

Training workers to identify the characteristics of poison oak is essential in helping them avoid contact. Before beginning any outdoor task where poison oak may be present, workers should visually inspect their immediate work area (do not search for poison oak!) and avoid such areas. Workers must also avoid contact with items that may have contacted poison oak, such as clothing or tools. If tools such as chainsaws or tree trimming equipment is suspected to have contacted poison oak, they must be thoroughly cleaned to prevent spreading exposure to other workers. Urushiol oil exposure routes and methods to avoid poison oak contact are provided to the right.



Learn to identify and avoid poison oak



Wear long clothing, gloves and/or coveralls



Barrier creams can be used to prevent contact with plant oils



Thoroughly scrub arms and legs (the most common points of contact) with soap and water



Remove clothing after potential exposure to poison oak



Put shoes on last so oils will not contaminate the inside of pant legs

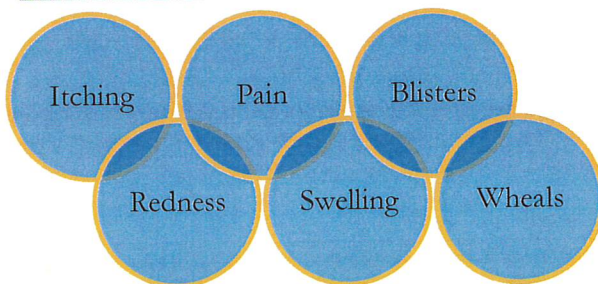
Contact with Urushiol Can Occur in Three Ways:

Direct Contact:
Touching plant or plant sap

Indirect Contact:
Touching objects exposed to urushiol (contaminated tools, clothes, pets, etc.). Keep in mind that the oil may remain on contaminated items and surfaces for long periods. These contaminated items can cause future rashes long after the initial exposure

Airborne Contact:
Burning plants with urushiol releases oleoresin particles into the air that can cause severe symptoms to the eyes, nose, throat and lungs

Poison Oak Exposure Symptoms



Urushiol is found in all plant parts of poison oak, including roots, stems, leaves, flowers (except in pollen and honey), and the fruit (berries). Contact with urushiol can cause two forms of contact dermatitis: allergic contact dermatitis and irritant contact dermatitis. Contact dermatitis is a localized inflammation of the skin caused by direct contact with a toxic or contaminated substance. Wheals are itchy, red circles with a white center that appear on the skin. If you have developed fluid-filled blisters, know that the fluid does not

contain urushiol. If the blisters break, the fluid will not cause the dermatitis to spread. Urushiol can get embedded and remain under your nails for several days unless carefully removed by thorough cleaning. Scratching other parts of the body with contaminated fingernails can spread poison oak. For extreme allergic reactions (e.g., difficulty breathing), seek medical attention immediately!

Poison Oak First Aid

- Immediately rinse skin with rubbing alcohol, specialized poison plant washes, degreasing soap (such as dishwashing soap) or detergent, and plenty of water. Rinse frequently so that wash solutions do not dry on the skin and further spread the urushiol
- Scrub under nails with a brush
- Apply wet compresses, calamine lotion, or hydrocortisone cream to the skin to reduce itching and blistering (do not apply to broken skin, such as open blisters)
- Oatmeal baths may relieve itching
- An antihistamine can be taken to help relieve itching
- If children contact work clothing contaminated with urushiol, a pediatrician should be contacted

For more information on Poison Oak, visit: <https://www.cdc.gov/niosh/topics/plants/default.html>.

Sources: BLS, CDC.



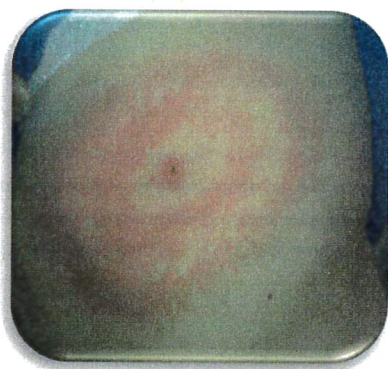
Tick Safety

What is a Tick?

A tick is not an insect; it is an arachnid with eight legs and is related to the spider. Ticks typically live in shady, wooded areas and can be found in tall grass, moss, bushes, low tree branches, and even lawns and gardens. The tick life cycle starts from an egg, grows to a larva, nymph, which then matures to an adult. Tick size ranges from the size of a sesame seed to a watermelon seed. Some ticks have soft bodies while others, like dog ticks and deer ticks, have a very hard shell. Larvae and nymphs are often found in the spring and summer, while adult ticks are found in the fall and winter. Both tick stages feed on humans and can transmit various diseases. In Contra Costa County, tick species include the Pacific Coast tick, American Dog tick, and the Western Black Legged tick.



Tick Bites and Symptoms



Ticks survive by finding and biting a host, burying their mouth into the skin and drinking blood (taking a 'blood meal'). They often climb to elevated locations, such as a blade of grass, tree, or the walls of a structure, and hold out their front legs to 'quest' for a host. Ticks can sense butyric acid, a compound emitted by all mammals, and latch on to a suitable host when it passes by. Once attached, ticks can stay on the skin for several weeks if not removed. Ticks that have taken a large blood meal become engorged to about the size of a large pea, typically dropping off their host and completing their next life cycle or laying eggs. Most tick bites are usually painless, harmless, and may produce no symptoms, leading to many bites going unnoticed.

Most bites are indicated within a few hours by a redness at the bite site that does not grow larger and disappears within a few days. If a person is allergic to tick bites, they may experience pain, swelling or burning at the bite site, rash, blisters, and if severely allergic, difficulty breathing.

Tick Diseases – Lyme Disease

In California, only the Western Black Legged Tick carries the bacteria that results in Lyme disease. An infected tick transmits the bacteria after taking a 'blood meal' for 24 to 48 hours. To prevent the spread of the bacteria and disease, it is important to check for ticks and remove them immediately! Early symptoms of Lyme disease include flu-like symptoms such as fever, fatigue, swollen lymph nodes, and aches. Sometimes a bulls-eye shaped rash develops between 3 to 30 days after being bitten. The bacteria that causes Lyme disease can stay in the body for several years if not treated with antibiotics. Seek medical if bitten by a tick to be evaluated for potentially needed treatment. Other potential symptoms of tick-borne diseases include:

Red spot
or rash
near bite

Full body
rash

Neck
Stiffness

Headache

Nausea

Weakness

Chills

Preventing Tick Bites

Avoiding tick bites is the most effective way to avoid contracting diseases they may be carrying. Before beginning outdoor tasks, employees should understand if ticks may be present and take appropriate preventative actions. Precautions, such as choosing and staying within the center of wide trails and avoiding off-trail areas where brush and grass is present reduces the likelihood of being bitten. Additional protective measures are shown to the right.



Wear long-sleeve clothing to cover as much skin as possible



Wear light colored clothing to help see and remove ticks before attaching



Wear high boots, tuck pants into socks and boots, tuck shirts into pants



Wear a hat and tie back long hair



Use tick/insect repellents containing DEET or pyrethrin on clothes and/or skin



Frequently check yourself for ticks outdoors and after outdoor activities



Once home, remove and launder clothing, shower immediately and check for ticks

How and Where to Look for Ticks



When checking for ticks, inspect areas such as the back of the knee, fingers, toes, underarms, thighs, belly button, and groin. Other areas to inspect include under belts, behind ears, back of the neck, scalp, and hairline. It is helpful to have someone else check areas you cannot see, such as the back, neck, and scalp. If you find an unattached tick, remove it immediately! When removing unattached ticks, do not use your bare hands. Instead, use gloves, tissue, or cellophane tape. Removed ticks should be put into a sealable plastic bag and thrown away.

How to Remove an Attached Tick

If you are bitten by a tick, it is important that you don't panic and remove them as soon as possible. Follow the steps to the right to safely remove and dispose of attached ticks. Do not torture a tick to remove it, which can cause it to salivate into the wound and 'inject' bacteria it may contain. Other methods to avoid when removing ticks include:

- Don't crush, twist, jerk, puncture or squeeze the tick's body
- Don't use a hot match or nail to remove the tick
- Don't smother the tick with petroleum jelly or other substances

Once removed, if you would like the tick tested for potential diseases, save the tick in a clean vial or zip-lock bag with a blade of grass and a moist cotton ball. Bring the tick to your local vector control district or your doctor to check the tick species and if it carries infection.

Call the Contra Costa Mosquito and Vector Control District (CCMVCD) at 925-6895-9301 for assistance.
Drop off or Mail removed ticks to: CCMVCD at 155 Mason Circle, Concord, CA 94520

Use fine-tipped, clean tweezers to grasp the tick as close to the skin's surface as possible

Pull upward with steady, even pressure. If the mouth breaks off, use tweezers to remove

After removal, thoroughly clean bite area and hands with rubbing alcohol, an iodine scrub, or soap and water

Dispose properly (e.g., flush down the toilet) and never squeeze a tick with your bare hands!

For more information on Tick Safety, visit: <https://www.cdc.gov/features/stopticks/index.html>

Sources: Center for Disease Control and Prevention (CDC), Contra Costa Mosquito & Vector Control District.
Risk Management – Loss Control 2018 Safety Topic

Stinging Insects

Stings – The Leading Cause of Insect-Related Deaths



Stinging insects (including wasps, yellow-jackets, hornets, and bees) pose a serious threat to outdoor workers. Fire ants also pose a stinging hazard but have not yet spread to northern California. In many cases, stings may only lead to discomfort, swelling, or rash. However, for individuals with allergies, they can be fatal. Between 2003 and 2010, the Bureau of Labor Statistics (BLS) reports that of worker fatalities from stinging insects, caused 54 fatalities. Before beginning any outdoor task, it is important to know if stinging insects may be present, identifying workers that may be allergic to stings, and what medical precautions may be necessary (e.g., location of an epinephrine pen). Training employees how to avoid stings is an important step protect workers from these hazards.

Avoiding Stings

Before beginning tasks outdoors, carefully survey the work area for signs that stinging insects are present and try to avoid these areas. Limit your survey to the work area and the area immediately surrounding it.

You can protect yourself using the following techniques:

- Wear lightly colored clothing that covers your body
- Seal openings in clothing, including tucking in pant legs
- Wear gloves and a hat
- Avoid scented personal hygiene products
- Use insect repellent – reapply as needed in hot temperatures

Additional information to help outdoor workers avoid stings is included to the right.



Avoid perfumed soaps, shampoos, and deodorants



Avoid flowering plants when possible



Keep work areas clear of food debris



Wear clean clothing and bathe daily
(sweat can anger flying stinging insects)



Remain calm and still if a flying stinging insect is nearby
(swatting can anger them)



Never attempt to remove a colony or hive
(seek professional exterminator assistance)

Where Are Stinging Insects Commonly Found?

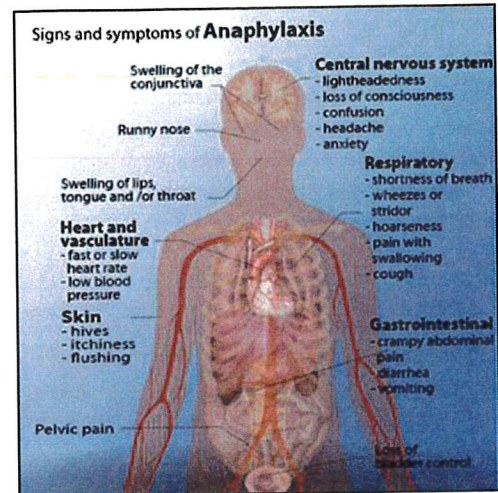
They can be found throughout the United States (U.S.) year-round, although they tend to be more active in warmer months. They are attracted to areas where they can find shelter, food, and water. While each species may have a preferred type of nesting spot, in general, nesting places can be found anywhere, including:

- Inside hollow trees, or in walls, attic, etc.
- Hanging from branches or overhangs (e.g., eaves of a building)
- In shrubs, bushes, hedges, or on tree limbs
- In rubber tires, crates, boxes, abandoned vehicles, etc.
- Under shrubs, logs, piles of rocks and other protected sites
- Inside rodent burrows or other holes in the ground



Identifying Allergic Reactions

The Centers for Disease Control and Prevention (CDC) reports thousands of people are stung by insects annually. As many as 90 to 100 people in the U.S., not just outdoor workers, die as a result of allergic reactions. Knowing how to identify severe allergic reactions quickly is critical in providing prompt and appropriate medical care. Once stung, many individuals may only have minor symptoms, such as localized swelling or redness. More severe reactions may include swelling of the face and difficulty breathing. The most dangerous reaction to a sting is anaphylactic shock, which is a severe allergic and requires immediate emergency care. Without prompt medical attention, anaphylaxis can lead to death in a matter of minutes. Signs and symptoms of anaphylaxis are shown to the right.



First Aid for Extreme Reactions

Individuals that are extremely allergic to stings carry an epinephrine, or 'Epi', pen in case of emergency. When working outdoors, these individuals should inform other workers where this device is located. Once stung, it is important to provide epinephrine as quickly as possible. The following is basic first-aid information when an individual is exhibiting signs of an extreme reaction. Also provided are steps on how to use an Epi-pen:

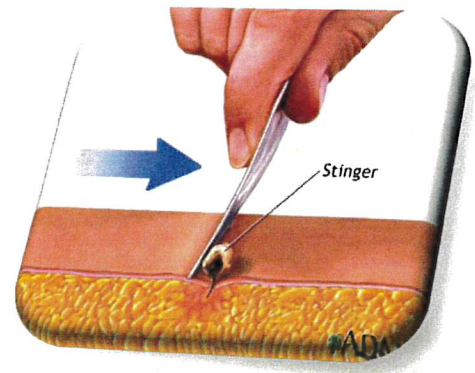
For extreme allergic reactions:

- Administer epinephrine shot
- Call 911
- Lay the individual down, elevate feet approximately 12 inches, and cover them with a blanket
- Stay with them until medical help arrives
- If the individual is not breathing, cardiopulmonary resuscitation (CPR) may be required



Removing a Stinger/Basic First Aid

If an individual has been stung, do not attempt remove the stinger with tweezers. Squeezing the stinger may inject more venom and increase the effects of the sting. Instead, use the method illustrated to the right to safely remove the stinger from the skin. If a credit, business card, or similar item is unavailable, use your finger to 'flick' the stinger out of the skin. Once the stinger has been removed, apply ice to the area to reduce any swelling and have the individual drink fluids. It is very important to stay with any person that has been stung to identify signs of allergic reactions quickly to provide the appropriate medical care. Many individuals may not know they are allergic to insect stings until after they have already been stung.



For more information on Stinging Insect Safety, visit: <https://www.cdc.gov/niosh/docs/2010-117/pdfs/2010-117.pdf> and <https://www.cdc.gov/niosh/topics/insects/beeswasphornets.html>.
Sources: BLS, CDC.

Insect Repellant

Is Insect Repellant Necessary?

Insect bites are a hazard for outdoor workers. Insect bites may cause pain, but most are not life-threatening. However, certain insects such as mosquitos can carry deadly diseases, so using insect repellant regularly when outdoors is important. Employees should apply repellent when working outdoors where the risk of mosquito bites is present. Many mosquitoes which carry the West Nile virus are more active near dusk and dawn. While working outdoors during these times, the importance of insect repellant increases. In many parts of the country, mosquitoes found to carry this virus also bite during the day. The best way to protect against these bites is to apply repellent anytime working outdoors.



Selecting the Right Repellant



Insect repellents are available in various forms and concentrations. Aerosol and pump-spray products are intended for skin applications as well as treating clothing. Liquid, cream, lotion, spray, and stick products are applied directly to the skin. Products with lower concentrations of an active ingredient are appropriate where exposure to biting insects is minimal. Repellants with higher concentrations of active ingredients should be used in highly-infested areas or with insect species which are more difficult to repel. Also consider non-chemical methods to deter biting insects, such as screens, netting, long sleeve shirts, and slacks to cover the skin.

N, N-diethyl-m-toluamide (DEET)

The most effective repellents contain diethyltoluamide (DEET), an ingredient used to repel insects such as mosquitoes and ticks. DEET has been tested and shown very effective against a variety of biting insects. DEET makes mosquitoes unable to locate humans, it does not kill them. Repellents are only effective short distances from the treated surface, so mosquitoes may still be nearby. The more DEET a repellent contains, the longer it can protect against mosquito bites. DEET concentrations higher than 50% do not increase the length of protection. Choose a repellent that provides protection based on the time you will be outdoors. Higher percentages should be used if you will be outdoors for several hours, while lower percentages can be used if time outdoors will be limited. Re-apply repellent as needed to provide adequate protection against bites. The following are ratings of the more commonly used insect repellent brands:

Consumer Reports Overall Ratings - Mosquito and Tick Repellent			
Product	Type	Mosquito (hours protected)	Tick (hours protected)
3M Ultrathon	Lotion, 33% DEET	13	10
Off! Deep Woods for Sportsmen	Pump Spray, 100% DEET	13	7
Muskol Ultra 6 Hours	Aerosol, 40% DEET	8	6
Sawyer Controlled Release	Lotion, 20% DEET	6	N/A
Cutter Unscented	Aerosol, 10% DEET	5	5
Off! Skintastic with Sunscreen SPF 30	Lotion, 10% DEET	4	N/A
Cutter Skinsations	Pump Spray, 7% DEET	2	5
Avon Skin-So-Soft Bug Guard Plus	Lotion, 7.5% IR3535	1	4

Is DEET Safe?

According to the Centers for Disease Control and Prevention (CDC), products containing DEET are safe when used according to the manufacturer-specific directions. Due to its widespread use, a great deal of testing on these products has been performed. Since its use in repellants, very few confirmed incidents of toxic reactions have occurred when the product is used properly. In areas affected by West Nile virus, the risk of adverse effects from DEET, including minor skin reactions, is much lower than the risk of catching the a potentially deadly disease. To use DEET safely, it must be used correctly.



Using Products with DEET Safely

When employees may use repellants containing DEET, manufacturer-supplied directions and warnings must be followed to use the product safely. Some DEET products have warnings, such as minimum age limits and other restrictions. Below are some general tips on using products with DEET safely:



DEET Products – Children

Using DEET Products on Children

- Don't apply DEET to infants under 2 months of age
- For children, apply to your hands and rub product on your child
- Avoid children's eyes/mouth and use sparingly around their ears
- Don't apply repellent to children's hands
- Don't allow young children to apply insect repellent to themselves
- Don't apply repellent to skin under clothing. If repellent is applied to clothing, wash treated clothing before wearing again
- Keep repellents out of reach of children
- If you suspect that you or your child have an allergic reaction to an insect repellent, discontinue use, wash treated skin, and call your local poison control center. If/when you go to a doctor, take the repellent with you. Get specific medical information about repellents by calling the National Pesticide Information Center (NPIC) at 1-800-858-7378

For children ages 2 to 12, The American Academy of Pediatrics recommends products with low concentrations of DEET, 10% or less. Whether children spend time outside during the school day should determine the need for applying repellent. If children will be spending time outdoors (e.g., during recreational activities, walking to and from school), parents may choose to apply repellent. Mosquito repellent containing DEET is the most effective in providing long-lasting protection from mosquito bites. Always read and follow manufacturer recommendations on the product label when using repellent on children.

For more information on Insect Repellent and avoiding mosquito bites, visit: [Environmental Protection Agency](#) (EPA) and [Centers for Disease Control and Prevention](#) (CDC).

Sources: EPA, CDC.

Spider Safety

Spiders – The Basics

Spiders belong to a group of animals called “arachnids,” which includes scorpions, mites, and ticks. Some people experience arachnophobia (the fear of spiders), but most spiders don’t cause harm to humans. However, certain types of venomous spiders in California can cause injury and even death. These spiders present hazards not only to outdoor workers, but to employees that work indoors as well. Spiders are generally not aggressive and tend to bite when they feel trapped or are disturbed. Knowing the difference between venomous and non-venomous spiders, where they may be encountered, and how to treat spider bites are important in protecting employees.



Black Widows

A black widow’s venom is 15 times more toxic than the venom of a prairie rattlesnake. It is highly neurotoxic, and if bitten, respiratory failure can occur if medical treatment is delayed. The bites are usually not fatal, especially for adults, due to the small amount of venom they inject. Cold weather and drought may drive black widows into buildings. The following is information to identify these spiders and basic first-aid measures for bites:



Western Black Widow: Identifying

- Found across western regions of the US. Females are venomous, males are generally harmless
- Females: Jet black, red hourglass marking on lower abdomen (sometimes yellow or white), 0.5" long



Webs and Locations

- Webs are sticky, coarse, and irregularly shaped, and usually built on or beneath objects close to the ground
- Found on underside of ledges, rocks, plants, debris, porches, building foundations, basements



Bite Symptoms

- May quickly cause intense pain and stiffness; some are not painful and may go unnoticed. The poison can cause abdominal pain, pain to muscles or soles of the feet
- Other symptoms: Paralysis of the diaphragm, profuse sweating, swollen eyelids



First Aid

- Apply an ice pack over the bite location and keep the affected limb elevated to near heart level. Try to collect the spider specimen in a small jar or plastic bag for examination by an expert, even if you have crushed it. Seek medical attention!

Household Spiders

Common household spiders are found indoors and account for most human bites. Some build wide webs in upper corners and near windows, while others build small ‘sack’ webs in lower corners and behind furniture and fixtures. Bites usually occur when the spider feels threatened, it becomes trapped against a person's skin in clothing or bedding, or if cornered. The following is information on household spider bite symptoms and basic first-aid for these bites:

Symptoms: Initial pain, redness, sometimes swelling. A small blister may form, often breaking, leaving a sore that heals over a period of several weeks. Soreness near the bite may last for a few days to several weeks, or may not occur at all, depending on the individual.

First-Aid: Wash spider bite areas with soap and water, apply an ice pack, and take acetaminophen for pain. Watch for signs of a secondary bacterial infection in the wound. If the bite of any spider causes an unusual or severe reaction, contact a physician.

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Tarantulas

Fall is tarantula time in Contra Costa County, the time of year when hordes of male spiders swarm on roads and through hillsides to find a mate. Tarantulas are usually nocturnal, live in the ground, and are reluctant to attack unless hunting prey. If provoked, tarantulas may signal their intention to attack and bite by raising their front legs and rearing up into a 'threat posture.' The tarantula's main defensive is to scrape a cloud of barbed, porcupine-like hairs from its abdomen into its attacker. These hairs can cause irritation to the eyes, nose, and skin, and airways and lungs if inhaled. The following is information to identify these spiders and basic first-aid measures for these bites:



Tarantulas: Identifying

- Found across California and other warm areas
- Average 7 to 10 cm in length; variety of colors and sizes but many are black or brown in color with dense, hairy bodies and long, needle-like fangs



Webs and Locations

- Webs are usually not present, but tarantulas do spin silk used to keep dirt/sand out of nest
- Lives in holes in the ground, or occasionally amid rocks, on dry, well-drained grass-covered hillsides or oak-filled woodlands



Bite Symptoms

- U.S. tarantulas' bites are normally not serious, with pain comparable to a bee sting
- If a person is highly-allergic, reactions may include pain, breathing difficulty, itchiness, rapid heart rate and swelling at the bite site



First Aid

- Encourage bleeding to flush out puncture wounds; clean with soap and water; monitor the wound for heat, redness, or signs of infection. Skin exposures to the hairs can be treated with sticky tape, which removes the hairs. Seek medical attention if signs of severe reaction occur!

PPE and Safe Work Practices

Individuals performing tasks at work or home where spiders may be present should follow these basic precautions to protect themselves from spider bites:

- Wear work gloves to protect your hands
- Avoid placing unprotected hands into woodpiles, under sinks, buildings alcoves, or similar areas. Inspect and clear these areas out before beginning work
- Wear coveralls if you must access an area likely to contain spiders and insects
- Shake out gloves and shoes before putting them on
- Do not store your protective clothing, tools or equipment outdoors



Managing Spider Populations

Spiders are beneficial in the garden but may be unwelcome indoors or near outdoor work areas. The best approach to controlling spiders is to remove their hiding spots and regularly remove webs and spiders from building interiors and off exteriors. The following is additional information on effectively managing spider populations:

- Seal cracks and openings in foundations and around buildings and structures; also seal window and door gaps
- Use window and door screens to prevent spider intrusion and the insects they rely on for food
- Regularly vacuum or sweep windows, corners of rooms, storage areas, basements, and other seldom used areas
- Indoor storage areas: Store boxes off the floor and away from walls. Seal the boxes with tape to prevent spiders from nesting, and practice good housekeeping practices
- Outdoors: Keep areas near building foundations free of trash, leaf litter, heavy vegetation, and other accumulations of materials. Trim plant growth away from buildings and other structures. Outdoor lighting attracts insects, which in turn attracts spiders. If possible, keep lighting fixtures off structures and away from windows and doorways.

For more information on Spider Safety, visit: <https://www.cdc.gov/niosh/topics/spiders/resources.html>
Risk Management – Loss Control 2018 Safety Topic

Rattlesnake Safety

Rattlesnakes – The Basics



In certain situations, outdoor workers may encounter rattlesnakes as part of their job duties. California (CA) is home to approximately 80 species of snakes, 10 of which are rattlesnakes. Approximately 8,000 people are treated annually for snakebites in the United States. 800 of these bites are related to rattlesnakes, 1 to 2 of which result in fatalities. Rattlesnakes can be dangerous, but they also provide us with a tremendous service: they eat rodents, other reptiles, and insects. Knowing where rattlesnakes are located, how to avoid bites, first-aid procedures and required personal protective equipment (PPE) can help reduce the likelihood of workers being bitten.

Identifying Rattlesnakes

A rattlesnake is a heavy-bodied, blunt-tailed snake with one or more rattles on the tail. It has a triangular-shaped head, much broader at the back than at the front, and a distinct 'neck' region. The rattlesnake also has openings between the nostrils and eyes, which acts as a heat-sensing pit. The eyes are hooded with elliptical pupils. Additional identifying characteristics include a series of dark and light bands near the tail, just before the rattles which are different from the markings on the rest of the body. Rattles may not always be present, as they are often lost through breakage and are not always developed on the young.



Rattlesnakes – Avoiding Bites

- ✓ Wear over-ankle safety footwear, thick socks, and long pants
- ✓ If brush or branch clearing, wear thick gloves
- ✓ Look down and watch where you step
- ✓ Do not turn over rocks or large branches
- ✓ Avoid tall grass, weeds, and heavy underbrush
- ✓ If you hear rattling, move away slowly and calmly

Rattlesnakes typically avoid humans but can attack when provoked or feel threatened. Most rattlesnake bites occur between the months of April and October, when snakes and outdoor workers are typically most active. Most snake bites occur when a rattlesnake is handled or accidentally touched by someone walking or climbing nearby. If you hear a rattlesnake's rattle, move away calmly and do not make sudden or threatening movements. Above all, never try to pick up a rattlesnake! Prior to working outdoors, consider the type of environment you may be working in. Is high brush present? Are you in areas where rattlesnakes may be found? If rattlesnakes may be present, take proper precaution, such as working in teams. Additional methods to avoid rattlesnake bites are provided to the left.

Where Are Rattlesnakes Commonly Found?

In Northern CA, the Northern Pacific Rattlesnake is the only native venomous species. It can be found from San Luis Obispo north to the Oregon border, and from the coast to the Sierra Nevada Ridge. Rattlesnakes are most active when the weather is warm but can also be found in the winter if weather conditions are favorable. Most rattlesnakes prefer 70 to 90-degrees Fahrenheit as an ideal temperature. As such, they are typically more active from spring through fall. They hide to protect themselves from predators so are typically not in plain view. They can be found under and between rocks, within logs, or in high weeds and underbrush. They can sometimes be found in plain view, for example, when warming themselves on rocks.



Camouflage makes rattlesnakes difficult to see, so always be alert!

Rattlesnake Bites – First Aid

All rattlesnake bites are emergencies and require immediate medical attention. 25% of rattlesnakes may strike without injecting venom, inflicting a 'dry bite.' Even without poison, bites can still become infected. If a rattlesnake injects venom, symptoms can include swelling, pain, bleeding at the site, nausea, vomiting, sweating, chills, dizziness, weakness, numbness or tingling of the mouth or tongue, and changes in heart rate and blood pressure. Other symptoms can include excessive salivation, thirst, swollen eyelids, blurred vision, muscle spasms, unconsciousness and difficulty with blood clotting. Severe symptoms can be life-threatening and must be treated with antivenin. Other treatment may include antibiotics and a tetanus update. Snakebite kits can help remove some venom but are not a replacement for medical care!

If working >1 hour from medical treatment:

- Know how long it will take emergency responders to arrive
- Always work with a buddy who will be able to go for help
- Always have a cellular phone and confirm reception
- Notify supervisors where you are working and check in with them regularly

If <1 hour from medical treatment after a bite:

- STAY CALM and calm the victim
- Gently wash the area with soap and water
- Apply a cold, wet cloth over the bite
- Transport the victim to the nearest emergency facility for further treatment

What NOT to do for a snake bite:

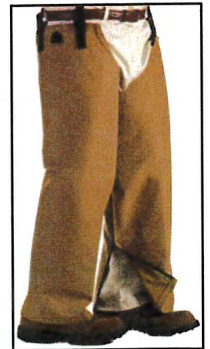
- DO NOT apply a tourniquet
- DO NOT pack the area in ice
- DO NOT cut the wound with a knife or razor
- DO NOT use your mouth to suck out the venom
- DO NOT let the victim drink alcohol
- DO NOT apply electric shock

Rattlesnake – Personal Protective Equipment

When working outdoors where rattlesnakes may be present, employees must wear the proper PPE to protect against bites. PPE, such as long-sleeve shirts, thick pants, thick gloves, and steel-toe footwear should be worn. Additionally, employees may consider snake chaps to protect against rattlesnake bites. Snake chaps work by providing a hard barrier that is impenetrable to a snake's fangs. Different types of snake chaps are available. Certain types cover just the shin, while others can provide protection to the waist area.

For more information on Rattlesnake Safety, visit:

https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5393596.pdf





Insect Bites and Stings: First-Aid

Bites and Stings – Know the Risk

Stinging and biting insects can pose serious threats to workers. Outdoor workers are at greater risk of being stung by flying insects such as bees, wasps, and hornets, and biting insects, such as black widow spiders. These risks are usually higher during the summer months. Insects are the most diverse group of animals on the planet and are found in nearly all environments. With over 1 million species of bugs on earth, contact with people is inevitable. While most bites and stings cause only mild discomfort, some may result in severe allergic reactions which require immediate medical care. Before beginning any outdoor task, workers with allergic reactions should be identified so proper emergency medical response can be provided in a timely fashion.



Bites and Stings – Risk Factors

Based on a national 5-year study of bite- and sting-related workplace fatalities and injuries, 39 of 42 deaths were attributed to stings. Additionally, spiders and insects caused over 36,000 reported, non-fatal occupational injuries and illnesses. Outdoor workers are usually stung or bit on exposed parts of their bodies, such as the arms and hands, face, and neck. When working outdoors, employees should use the appropriate insect repellent on exposed areas for additional protection against bites and stings.

Bite and Sting Signs and Symptoms

Symptoms from insect bites result from the injection of venom and other substances into the skin. In turn, venom triggers an allergic reaction. The severity of the reaction depends on the individual's sensitivity to the insect venom or substance. Most reactions to insect bites and stings are mild, and many employees may not realize they have been bitten or stung. Examples of mild reactions to bites and stings include:

Itching

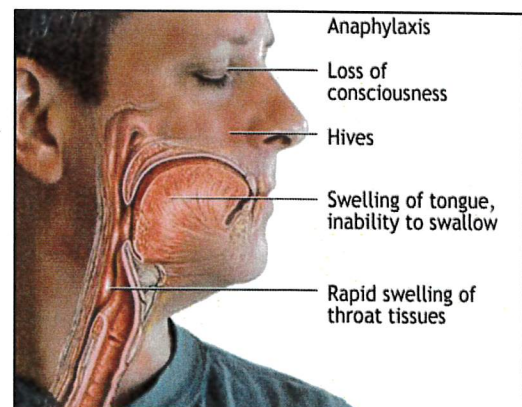
Stinging or Tingling
Sensation

Mild Swelling

Redness at Bite or
Sting Location

Mild reactions last approximately one day. Immediate and delayed reactions can occur from one bite or sting. A delayed reaction may cause fever, hives, painful joints and swollen glands. Bites from bees, wasps, hornets, yellow jackets, and fire ants typically generate stronger symptoms. Bites from mosquitoes, ticks, biting flies and some spiders also can cause reactions, but are generally milder. Sometimes severe reactions can occur; however, only a small percentage of people develop these types of allergic reactions (anaphylaxis) to insect venom. Signs and symptoms of a severe reaction include:

- Swelling of the face, throat, tongue
- Difficulty Breathing
- Abdominal Pain
- Shock
- Hives



Severe allergic reactions can be life-threatening! If a person begins to exhibit signs of a severe allergic reaction, act quickly to get the individual medical treatment

First Aid – Mild Reactions

For most individuals, reactions to bites and stings are minor and require only basic first-aid. A worker exhibiting mild reactions should be provided certain first-aid measures based on the reaction. In case these situations occur, all outdoor workers should carry a properly-stocked and up-to-date first aid kit. The following information details first-aid procedures for mild bite and sting reactions:



1. Move the person to a safe area to avoid additional stings or bites
2. For stings, scrape or brush off the stinger with a straight-edged object, such as a credit card. Wash the affected area with soap and water. Don't squeeze or pull out the stinger, which may release more venom
3. Apply a cold pack or cloth filled with ice to reduce pain and swelling
4. Control pain, itching, and swelling with over the counter medications such as:
 - Hydrocortisone cream (0.5 percent or 1 percent), calamine lotion or a baking soda paste (a ratio of 3 teaspoons baking soda to 1 teaspoon water) applied to the bite or sting several times a day until symptoms subside
 - Antihistamine containing diphenhydramine (Benadryl, Tylenol Severe Allergy) or chlorpheniramine maleate (Chlor-Trimeton, Actifed) can control swelling, pain, and itching
5. Watch for infection as the wound heals. Areas of swelling, tenderness or redness that increase in size of painfulness should be examined by a physician

First Aid – Severe Reactions

If a worker has been stung or bitten, they should be monitored for signs of severe allergic reactions. Many people may not know they are allergic until it is too late. If signs of severe allergic reactions are identified, it is critical that emergency first-aid measures are implemented quickly. Certain workers with knowledge of allergies to certain insect bites and stings, commonly bee stings, may carry an epinephrine pen ("Epi-pen"). Before beginning outdoor work, these employees should let others know of this allergy and where this device is being stored (e.g., within a vehicle) in the event of an emergency. The following are emergency procedures for severe allergic reactions:



1. Call 911 immediately, as these reactions can be life-threatening!
2. Check for special medications that the person might be carrying to treat an allergic attack, such as an Epi-pen. Administer the drug as directed, usually by pressing the auto-injector against the person's thigh and holding it in place for several seconds. Massage the injection site for 10 seconds to enhance absorption
3. After administering epinephrine, have the person take an antihistamine pill if they are able to do so without choking
4. Have the person lie still on their back with feet higher than the head to prevent shock
5. Loosen tight clothing and cover the person with a blanket. Do not provide anything to drink
6. If the person is vomiting, turn them on his or her side to prevent choking
7. If necessary (e.g., the worker is unresponsive), begin cardiopulmonary resuscitation (CPR)

Here are some helpful tips to avoid bites and stings:

- Do not provoke insects
- Do not move with rapid, jerky movements near insect hives or nests
- Do not wear perfumes or floral-patterned or dark clothing, which can attract insects
- Use insect repellants and wear protective, long-sleeve clothing to cover exposed areas of the body
- Use caution when eating/drinking outdoors, especially with sweetened beverages or in areas near garbage cans. Place garbage cans away from eating areas and employees

For more information on First-Aid for Insect Bites and Stings, visit: [WorkCare](#).

Sources: Mayo Clinic, Centers for Disease Control and Prevention, WorkCare.

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Contra Costa County
Public Works
Department

Adopt – A – Road Program

Appendix B
Administrative Bulletin 421.1

CONTRA COSTA COUNTY
Office of the County Administrator

ADMINISTRATIVE BULLETIN

Number: 421.1
Date: 11-19-96
Section: Personnel

SUBJECT: County Volunteer Programs

- I. GENERAL. This bulletin provides the rules and procedures to be followed by County departments governing volunteer programs, including the policies and procedures for reimbursement of expenses; medical and permanent disability benefits; and legal defense and indemnification against liability claims initiated by third parties. These regulations and procedures are promulgated in accordance with the policy adopted by the Board of Supervisors.
- II. RULES AND PROCEDURES. County departments shall submit to the Office of the County Administrator a description of each volunteer program. Such programs become County programs subject to the provisions of this Administrative Bulletin upon written approval of the County Administrator, or designee.
 - A. County departments sponsoring volunteer programs shall have a staff member assigned as a volunteer coordinator whose name and telephone number shall be provided to the County Administrator. The Volunteer Program Coordinator shall be responsible for the initial orientation and training of new volunteers. Confidentiality requirements, and program elements shall be explained to volunteers.
 - B. Volunteers are required to fill out, read and sign an application form and supporting documents. The volunteer coordinator, or designee, will sign the application form to acknowledge its receipt and will provide a copy to the applicant
 - C. Records shall be kept of the acceptance of volunteers. If reimbursement of actual and necessary expenses in performing volunteer services is authorized, the volunteer must sign the Oath of Allegiance form. If the volunteer is a minor, the parental consent form must be completed and signed by the parent or legal guardian.
 - D. Application, parental consent, auto insurance declaration and oath of allegiance forms to be used by departments are attached.
 - E. Disabilities of a volunteer may be discussed with Risk Management and/or the Affirmative Action Officer.
 - F. If a volunteer is to use a personal vehicle in the course of authorized volunteer services, the volunteer will be required to fill out the "Volunteer Auto Insurance Declaration" form. Volunteers must check with their insurance agent or broker to make certain that liability insurance is extended under their policy while their vehicle is being used for volunteer activities. Auto insurance is required for all volunteers

who will use their personal automobile while performing authorized volunteer services with at least the following limits:

\$15,000 for injury to or death to one person

\$30,000 for injury to or death to two or more persons in one accident

\$ 5,000 for property damage

The volunteer must furnish a California motor vehicle operators license if he/she is to use a vehicle and the license number together with insurance policy number duly noted on the Auto Insurance Declaration (form attached). A Certification of Insurance or other evidence of insurance may be requested and placed on file.

- III. INJURY TO VOLUNTEER. Authorized volunteers are not entitled to workers' compensation benefits. In lieu thereof and in return for the volunteer waiver of any claim against the County for illness, injury or other harm arising from acts or occurrences while providing volunteer services, the County shall provide, in the case of volunteer illness, injury or death resulting from acts or occurrences while providing authorized volunteer services, through self-insurance, for reimbursement of County authorized necessary medical expenses, and for minimum permanent disability compensation equal to that afforded under the workers' compensation laws of California, provided, however, that no temporary disability compensation shall be paid; that medical expenses shall be limited to reimbursement for expenditures otherwise qualified for reimbursement which are not covered by the volunteer's health plan, other available insurance coverage, or other third party (i.e., Federal, State or other payment); and that the County may elect to have the County's Health Services Department provide the volunteer's necessary medical care.
- IV. PUBLIC LIABILITY. The County through its self-insurance program shall defend and indemnify volunteers upon request against liability claims initiated by third parties arising out of the volunteer's acts or omissions occurring within the scope of authorized volunteer services, unless the volunteer acted or failed to act because of actual malice, fraud, corruption or gross negligence. Volunteers using personal automobiles in performing authorized services must maintain liability insurance at limits which as a minimum comply with the California Financial Responsibility Law and must have a driver's license. The protection afforded by the County shall be in excess only of any other public liability or automobile liability insurance maintained by or which provides coverage for the volunteer, and shall not cover any damages to the volunteer's vehicle including any deductible amount. Volunteers may be permitted to operate County vehicles in the performance of authorized volunteer services.
- V. PROCEDURE IN CASE OF ACCIDENT OR INJURY. When a volunteer is injured while performing authorized volunteer services, the department shall immediately notify the Risk Management Department and arrange for medical care as necessary. The volunteer's supervisor shall immediately thereafter complete the Supervisor's Report of Occupational Injuries or Illness (Form AK-30). The Supervisor shall then forward the form to the volunteer coordinator who within 24 hours shall submit the report through department channels to Risk Management Division. The form shall indicate that the injured party is a volunteer and identify any referral to a medical provider. The Risk Management Division may arrange for the County's Health Services Department to provide the volunteer's medical care.

All medical bills received by the volunteer for County authorized medical care not otherwise covered by health insurance, other insurance, or third party payment shall be forwarded to the Office of the County Administrator, Risk Management Division. Such bills must be itemized and indicate the date of injury. County payments will be made jointly to the volunteer and to the medical provider.

Any claims for permanent disability compensation shall be referred to the Risk management Division for review and adjustment. Prior to final settlement and payment for any such claim, the volunteer shall execute an appropriate form releasing the county from any further liability and agreeing that such compensation shall be the volunteer's sole and exclusive remedy with respect to the injury sustained.

When there is an accident resulting in third party personal injury or property damage, the appropriate accident report form shall be completed by the Supervisor and forwarded to the volunteer coordinator and to the Risk Manager Division. The subsequent procedure to be followed shall be identical to that applicable as in accidents involving County employees.

- IV. REIMBURSEMENT OF EXPENSES. Volunteers are eligible to receive reimbursement from the County for certain actual and necessary expenses incurred in the performance of authorized volunteer services. In order to claim expenses, the volunteer must have signed the Oath of Allegiance before any County officer authorized to administer oaths and meet previously described insurance requirements.

Volunteers are subject to the County reimbursement policies established for County employees. The County will not reimburse volunteers for child care expenses; mileage from the volunteer's residence to the County designated facility or service location, unless authorized and funded by a federally-funded or state-funded program approved by the Board of Supervisors; or damage to the volunteer's personal vehicle, including any deductible provisions which are paid by the volunteer. The volunteer must provide information to the volunteer coordinator with respect to the automobile liability insurance coverage maintained prior to the use of the personal vehicle for volunteer services and reimbursement of mileage claims.

NOTE: Forms can be reproduced locally.

Orig. dept.: County Administrator

/s/

Phil Batchelor,
County Administrator

CONTRA COSTA COUNTY
VOLUNTEER APPLICATION AND REGISTRATION FORM

_____/_____/_____
Name Age Social Security No.

Home Address Home Phone

Business Address Business Phone

Driver's License No., If Any

Do you have a health problem we should be aware of in an emergency?

Yes____ No____ (Describe: such as a history of back trouble, heart, epilepsy, diabetes, fainting, etc.)_____

Is there a medication you must take? Yes____ No____

Is there a medication to which you are allergic? Yes____ No____

If yes, medication is:_____

Medical or Hospital Insurance Plan:_____

Automobile Insurance Carrier:_____

Person to Call in Emergency Address Phone No.

I have been informed against and accept responsibility for any breach on my part respecting confidential information. I have read the Policy adopted by the Contra Costa County Board of Supervisors on volunteer programs. In return for the benefits provided by Contra Costa County in case of my illness, injury, death, or third party liability while providing, or resulting from acts or occurrences within the scope of my authorized volunteer services, and for my right to authorized expense reimbursement, I waive any claim on my behalf and on behalf of my heirs, representatives, and assigns against the County of Contra Costa any other agency governed by the Board of Supervisors, and any agent, officer or employee thereof for illness, injury, debts or without limitation, other harm arising from my volunteer services, whether or not authorized.

Signature Date

Received: _____
Signature Date

CONTRA COSTA COUNTY
PARENTAL CONSENT FORM
VOLUNTEER PROGRAM

Name of Minor: _____

Address: _____

Birth Date: _____

Volunteer Activity: _____

The above person, a minor, desires to perform volunteer services for the County in accordance with the attached application form.

As parent/guardian of this minor, permission is hereby granted for him/her to participate in the volunteer program. My child does not have any physical or medical problems which would prohibit or limit participation in the volunteer program, except:

In case of illness or emergency, please call: _____

Telephone Number: _____

I have reviewed the volunteer application and registration form and the policy adopted by the Contra Costa County Board of Supervisors on volunteer programs, and give my consent for _____ to participate in the volunteer program subject to the terms and conditions expressed therein.

Signed by Parent/Guardian: _____

Date: _____

CONTRA COSTA COUNTY
VOLUNTEER SERVICES
AUTO INSURANCE DECLARATION

Date: _____

This is to certify that I, the undersigned, am in possession of a valid California Driver's License:

No.: _____

Expiration Date: _____

My car is a:

Make: _____

Model: _____

Year: _____

License No.: _____

My car is insured with:

Company: _____

Policy No.: _____

Expiration Date: _____

I further certify that I have minimum liability insurance coverage as follows:

\$15,000 for injury to, or death of, one person;

\$30,000 for injury to, or death of, two or more persons in one accident;

\$ 5,000 for property damage.

If I no longer meet the minimum liability insurance coverage requirements, I will immediately notify the Volunteer Program Coordinator.

____ I certify that I will not be operating a vehicle in my capacity as a volunteer.

Signature

Address

VOLUNTEER PROGRAM POLICY

The use of volunteers in performing specific services is a valuable resource and provides an avenue for citizen participation in various County programs which is recognized as being of public benefit. In recognition of the benefits which may be derived from volunteer services, it is hereby declared that it shall be County policy to encourage and promote volunteer programs determined to be in the public interest.

It is County policy that volunteers will not replace County employees but will provide services to supplement or enrich regular County programs and services.

This policy statement is designed to provide the framework for County volunteer programs activities. The following guidelines are adopted for volunteer programs.

A. Volunteer Programs

A description of each volunteer program shall be submitted by the department head to the County Administrator for review and approval.

Factors to be considered in evaluating programs are the need for and public benefit to be derived from the volunteer program, associated County cost and staff effort required for such a program, the potential for injury to volunteers, and the possibility for injury to others including injuries giving rise to possible liability claims.

The County Administrator may adopt regulations governing the administration of this volunteer program.

B. Volunteers

A volunteer is defined as a person who renders services gratuitously and has been accepted in the volunteer program. The volunteer is not an employee of the County.

In recognition of the benefit to the County derived from volunteer services, and in return for their waiver on their own behalf and on behalf of their heirs, representatives, and assigns of any claim against the County of Contra Costa, other agency governed by the Board of Supervisors, and any agent, officers, or employee thereof, for illness, injury, debts, or without limitation any other harm arising from such volunteer services, authorized volunteers serving in approved programs shall be provided the benefits indicated below:

1. Injury to Volunteer. Contra Costa County volunteers are not entitled to workers' compensation benefits. In lieu thereof and in return for the volunteer's waiver of any claim against the County for illness, injury or other harm arising from acts or occurrences while providing volunteer services, the County shall provide, in the case of volunteer illness, injury or death resulting from acts or occurrences while providing authorized volunteer services, through self-insurance, for reimbursement of County authorized necessary medical expenses, and for minimum permanent disability compensation equal to that afforded under the workers' compensation laws of California, provided, however, that no temporary disability compensation shall be paid; that medical expenses shall be limited to reimbursement for expenditures otherwise qualified for reimbursement which are not covered by the volunteer's health plan, other available insurance coverage, or other third party (i.e., Federal, State or other payment); and that the County may elect to have the County's Health Service Department provide the volunteer's necessary medical care.
2. Public Liability. The County through its self-insurance program shall defend and indemnify volunteers upon request against liability claims initiated by third parties arising out of the volunteer's acts or omissions occurring within the scope of authorized volunteer service, unless the volunteer acted or failed to act because of actual malice, fraud, corruption or gross negligence. Volunteers may be permitted to operate County vehicles in the performance of authorized volunteer services. Volunteers using County or personal automobiles in performing authorized services must maintain liability insurance at limits which as a minimum comply with the California Financial Responsibility Law and must have a driver's license. The protection afforded by the County shall be in excess only of any other public liability or automobile insurance maintained by or which provides coverage for the volunteer, and shall not cover any damages to the volunteer's vehicle, including any deductible amount.
3. Expense Reimbursement. Volunteers may be reimbursed for actual and necessary expenses in performance of authorized volunteer services at the same rates and in accordance with regulations and procedures established for County employees. No reimbursement will be made for any child care expenses, mileage from the personal residence of the volunteer to the County facility or service location or for damage to personal vehicles or other property of volunteers used when performing authorized volunteer services.